

511 Enhanced Traffic Information

On March 24, 2004, MTC unveils significant upgrades to the regional 511 traveler information service — both on the phone and on the Web at [511.org](http://www.511.org).

On the Phone

Enhanced software supports an array of new features on the 511 phone system that dramatically expands both the quantity and quality of traffic information. The new features include:

- 1 On-demand, point-to-point **Driving Times**, making the Bay Area the first metropolitan area in the U.S. to offer this level of detail through a toll-free 511 phone system and on the Web at www.511.org. 511 Driving Times calculates the travel time between cities or major landmarks in the Bay Area as selected by the caller, taking into account current traffic conditions. This feature also provides detailed incident information on the selected route. Initially providing data for select East Bay freeways and the Bay Bridge, 511 Driving Times will be available for significantly more routes in the coming weeks and on all Bay Area freeways by early 2005.
- 2 Detailed information about **traffic slowdowns**, including actual traffic speeds when traffic is moving under 40 mph, is now included in the reports provided in the Traffic Conditions menu option.
- 3 More detailed information about the location of **accidents, stalls and other traffic incidents**, including the city in which the incident is located, is now included whenever an incident or accident is reported.
- 4 An **upgraded voice response system** that is easier to navigate and has a quicker response time. For example, the system now allows callers to directly ask for traffic incident information for multiple freeways without having to go back to the traffic conditions menu each time. In addition, callers requesting information on routes with multiple incidents can now skip ahead without listening to an entire incident description by saying “next incident”.
- 5 A new option that allows callers to be transferred to the **FasTrak™** customer service.

On the Web

In addition to the new features on the 511 phone service, the 511 Web site at www.511.org adds a new Traffic Website to its suite of services.

The premier feature of the 511 Traffic Website is an interactive map and a set of tools. With these tools, users can calculate personalized driving times and get up to the minute information on congestion, roadwork, and accidents.

Since not everyone likes to get their information from a map, the 511 Traffic Website

also provides all of the above information in tabular format. This feature is also valuable for people with visual impairments who use the web.

The 511 Traffic Website provides a summary of driving times for key corridors throughout the region, such as I-80 from Vallejo to San Francisco.

511 Driving Times

511 Driving Times is one of the most eagerly anticipated features of the 511 traveler information service, providing actual travel times for specific routes based on real-time traffic information. By using sensors along the roads to measure speeds, 511 Driving Times calculates trip times based on current conditions.

Accessible via both phone and Web, 511 Driving Times will initially be available for:

- 1 The entire Interstate 80 corridor from San Francisco to Highway 12 east near Suisun City (including the San Francisco/Oakland Bay Bridge and the Carquinez Bridge);
- 2 Interstate 880 from the MacArthur Maze in Oakland to Fremont; and
- 3 Interstate 680 from Highway 4 in Pacheco to Interstate 580 in Dublin/Pleasanton.

By mid-2004, 511 Driving Times also will be available on U.S. 101 from Santa Rosa to the Golden Gate Bridge Toll Plaza; from San Francisco south to the San Mateo-Hayward Bridge; Interstate 280 in San Francisco; and the Golden Gate, Richmond/San Rafael, San Mateo-Hayward and Dumbarton bridges. The rest of the Bay Area freeway network will be added by early 2005. A map illustrating these coverage phases is enclosed.

To use 511 Driving Times on the phone, callers simply use the state-of-the-art voice response system to say the origin and destination of their trip, and 511 provides information about how long the trip will take. The system recognizes and offers callers the option of referencing cities, bridges and "hotspots" (e.g., the Caldecott Tunnel or SBC Park) as trip starting or ending points.

The new 511 Traffic Website also features 511 Driving Times. The service allows computer users to obtain real-time traffic information, as well as the ability to calculate trip times between different points in the Bay Area under current conditions.

How to Provide Feedback

Comments about the 511 Traffic service can be made on the Traffic Website at 511.org. To provide feedback, users can simply click on the "Suggestions" link in the left-hand column under the "Search" feature.

General Background: Traveler Information Available on the Phone and on the Web

511 is a toll-free phone and Web service that consolidates Bay Area transportation information into a one-stop resource available 24 hours a day, 7 days a week. This easy-to-remember, three-digit number provides up-to-the-minute information including:

- 1 Traffic conditions and incidents, and customized point-to-point driving times (initially on select freeways and expanding regionwide over the next 12 months);
- 2 Public transportation routes, fares, schedules and trip planning;
- 3 Instant carpool and vanpool referrals;
- 4 Bicycling information and more.

The Bay Area's 511 traveler information system is managed by a partnership of public agencies led by the Metropolitan Transportation Commission, the California Highway Patrol and the California Department of Transportation.

In July of 2000 the Federal Communications Commission (FCC) assigned 511 as the national telephone number for travel information. 511 systems will eventually cover the entire U.S. and be woven together to create a seamless, nationwide service. The Bay Area is one of the first major metropolitan areas to activate 511 and boasts the nation's most comprehensive and innovative system to date. More than 20 percent of all 511 calls nationally are placed to the Bay Area system.

Traveler Information on the Phone at 511

The Bay Area's 511 phone service is available toll-free throughout the entire nine-county region, on nearly all landline and wireless phones.

A state-of-the-art speech recognition system allows callers to navigate through the system without pressing a button. Information is organized under four main menu items: public transportation, traffic, bicycling, and carpooling or vanpooling. Responses to requests for traffic information are fully automated. Requests for public transportation, bicycling, carpooling, or vanpooling information are fulfilled by transferring callers to operators at regional transit agencies and the regional rideshare program.

The customer-friendly voice response system can be interrupted at any time and allows callers to say "repeat," "main menu," or "go back" to easily navigate the menu. In addition, callers can use shortcuts to go directly to the information they need from the main menu. For example, callers can say "AC Transit" to be immediately connected to a transit agency representative. Newer callers can rely on menu prompts to guide them through their options.

An option to use touch-tone commands is available by pressing "0" at any menu. Speech or hearing-impaired individuals can dial 711, a service that connects users to the California Relay Service (CRS). CRS provides access to TTY machines (or TDDs for telecommunication devices for the deaf) that allow hearing and speech-impaired persons to communicate directly with voice users. Callers simply ask for 511 service and inform the 711 operators exactly what travel information they need, and the 711 operators relay

the data from the 511 system directly to the caller.

Traveler Information on the Web at www.511.org

Travelers can log on to www.511.org for even more information, tools and services. Like the 511 phone service, www.511.org offers four major features – traffic, transit, rideshare, or bicycling.

The new *511 Traffic* Web site features an interactive map that calculates driving times and shows incidents, levels of congestion, special events and construction.

The *511 Transit* Web site at www.511.org is the most comprehensive resource for Bay Area transit riders anywhere on the Internet— with route maps, fares, schedules and other information from more than 60 transit and paratransit operators throughout the region and in several adjacent counties. Available information includes service to popular destinations, commuter incentive programs, service to special events, parking amenities, services for the elderly and disabled, service disruption notices and more.

The centerpiece of the 511 Transit Web site is an updated version of MTC's popular TakeTransitSM Trip Planner, which generates personalized, door-to-door trip itineraries with schedules, fares, time estimates, transfer instructions (including inter-agency transfers) and walking maps. The trip planner currently includes route and schedule information for 20 different transit providers. Information for additional agencies will be incorporated into the 511 TakeTransitSM Trip Planner in the months ahead.

The *511 Rideshare* Web page hosts the 511 Online Ridematching tool, which allows users to immediately access information about potential ridesharing partners, as well as information about commute incentives, park and ride lots, carpool lanes and much more.

The *511 Bicycle* Web page offers bicycle maps as well as information about taking bikes on transit, bicycling on bridges, and bicycle racks and lockers. Coming in May 2004, a Web-based regional bicycle mapping system will help simplify the bike trip planning process and provide detailed route information for travelers. This is especially important for the occasional cyclist or cyclists unfamiliar with the area where they will be riding. By knowing whether or not there are bike lanes or trails, the bicyclist can make informed decisions about a trip.

Data Collection for Enhanced Traffic Services

All of the information on the www.511.org Traffic Website is provided by the Metropolitan Transportation Commission (MTC), in partnership with Caltrans and the California Highway Patrol (CHP). MTC funds the 511 telephone number, the www.511.org Web page and all other elements of the regional 511 system. Caltrans operates the Bay Area traffic management center, which is the hub for all highway traffic information in the nine-county region. Caltrans also supports 511 Driving Times by installing data collection equipment along Bay Area freeways. CHP helps www.511.org provide up-to-date traffic conditions by reporting incidents as soon as they happen.

The technology for the Caltrans system is based on a series of inductive loops embedded in the freeways; the MTC data collection system relies on FasTrak™ toll tags. These two data sources are used to calculate average speeds and travel times on Bay Area freeways.

Loop Detector Data Collection

The Caltrans traffic data collection system relies on pairs of metal loops embedded in the pavement of certain freeways. These loops are able to determine when a vehicle passes over them. By measuring the time it takes for a vehicle to go between two loops, the system can determine the speed of traffic at that point. Travel times can then be estimated from the speed data.

FasTrak™ Toll Tag Data Collection

The 511 Traffic enhanced data collection system uses small antennas over freeways that read FasTrak™ toll tags (the credit card-sized device typically installed on car windshields). Unlike the antennas at the toll plazas, the antennas installed for 511 will not cause the toll tags to beep, so there will be no annoying noises for drivers. When a car with a FasTrak™ toll tag drives by an antenna, the system detects it and then immediately scrambles the tag's identification number to protect personal privacy. When that car passes the next 511 antenna, the system again detects the toll tag, scrambles it, and calculates the speed to determine current travel times for that stretch of roadway.

FasTrak™ customers participate in 511 Driving Times simply by leaving their toll tag on the windshield for the antennas to read it. The more tags providing data for 511 Driving Time calculations, the more accurate the system will be. FasTrak™ users will remain anonymous. Encryption software scrambles each toll tag ID number before any other processing happens; the set of scrambled IDs is discarded and the encryption code is changed every day. No database of encrypted IDs is maintained, and 511 staff does not have access to either the FasTrak™ ID number or any personal information related to the toll tag.

The 511 Partnership

The Metropolitan Transportation Commission (MTC) is responsible for the planning, financing and coordination of transportation throughout the nine-county San Francisco Bay Area. Created in 1970, MTC functions as both the regional transportation-planning agency (a state designation) and, for federal purposes, the region's metropolitan planning organization (MPO). MTC is responsible for the Regional Transportation Plan, a comprehensive strategy for the development and maintenance of local streets and roads, as well as highway, transit, airport, seaport, railroad, bicycle and pedestrian facilities.

Development and deployment of the 511 service are the result of a partnership between MTC, the California Highway Patrol (CHP), the California Department of Transportation (Caltrans), and dozens of public transit and paratransit operators. Additionally, MTC works closely with a consortium of engineering, telecommunications and design firms led by PB Farradyne Inc and bd Systems, Inc.

The following is a list of transit partners that provide vital public transportation information to the 511 system. This information is then turned around and given to Bay Area travelers via the phone and Web.

511 Transit Partners

AC Transit	Harbor Bay Ferry	Information
Altamont Commuter Express (ACE)	Healdsburg Transit	Solano Paratransit
Alameda/Oakland Ferry	Lake Transit	Sonoma County Transit
American Canyon Transit	LAVTA	Special Services for Vacaville
Angel Island - Tiburon Ferry	Mendocino Transit Authority	Coach
BART	Modesto MAX	The VINE
Benicia Dial-a-Ride	Monterey-Salinas Transit	Tri Delta Transit
Benicia Transit	MUNI	Union City Paratransit
Blue & Gold Ferry	MV Transportation	Union City Transit
Caltrain	Outreach for Santa Clara VTA	Unitrans
Capitol Corridor	Petaluma People Services	Vacaville City Coach
Cloverdale Transit	Petaluma Transit	Vallejo Baylink Ferry
Coastside Opportunity Center San Mateo County	Redi-Wheels for San Mateo County	Vallejo Run About
County Connection	Transit District	Vallejo Transit
County Connection LINK	Red & White Ferry	VINE Go
DART for Fairfield-Suisun Transit	RIDES	Volunteer Wheels for Sonoma
Dumbarton Express	SamTrans	VTA
East Bay Paratransit Consortium	San Benito County Transit	West CAT
Emery-Go-Round	San Francisco Paratransit	WHEELS Dial-a-Ride for LAVTA
Fairfield-Suisun Transit	San Joaquin Regional Transit	Whistlestop Wheels for Marin
Golden Gate Transit	Santa Cruz Metro	Yolobus
	Santa Rosa City Bus	Yountville Shuttle
	Solano Napa Commuter	

Praise for the Bay Area's 511 Traveler Information Service

Awards

While the Bay Area's 511 Traveler Information Service has only been operational for little more than 15 months, the project has received numerous prestigious transportation industry awards including:

- 1 California Transportation Foundation Award for Excellence,
- 2 American Public Transportation Association's Award for Innovation,
- 3 California Alliance for Advanced Transportation Systems awards for 1) Best Public Innovation and 2) Best Partnership.

In addition, the Bay Area 511 service is currently a finalist for the Intelligent Transportation System (ITS) of America's Award for Best New Product or Service, to be awarded during ITS America's Annual Meeting and Exposition, April 26-28, 2004 in San Antonio, Texas.

Customer Feedback About 511

MTC is committed to understanding and meeting the needs of Bay Area motorists, transit passengers, bicyclists and carpoolers. In addition to collecting customer comments, MTC also conducts user surveys and convenes focus groups with users to obtain detailed feedback about the 511 service.

During the last week of May 2003, MTC implemented a satisfaction survey, which targeted 511 phone users in order to obtain a satisfaction rating of the 511 telephone service. Over 1,000 people participated in the survey. Key findings were:

Overall, user satisfaction is high at 90 percent.

The vast majority – 90 percent – of respondents reported that overall they were satisfied with the 511 service — with 62 percent 'very satisfied' and 28 percent 'somewhat satisfied'. Only 10 percent of respondents stated that they were dissatisfied with the service (4 percent 'very dissatisfied, 6 percent 'somewhat dissatisfied').

Seekers of traffic information are the most satisfied with 511.

95 percent of those respondents in the 'Traffic' travel mode report being either 'very' or 'somewhat satisfied' (62 percent of traffic users were 'very satisfied' and 28 percent were 'somewhat satisfied').

Satisfaction among first-time and repeat users is high.

63 percent of respondents using the system for the first time reported being 'very satisfied' and 61 percent of repeat users indicated the same level of satisfaction.

Heavy users report calling 511 at least once a day.

Nearly one in three users (31 percent) indicated that they were 'heavy' users and call 511 at least once per day.

The vast majority (87%) of callers plan to use 511 again.

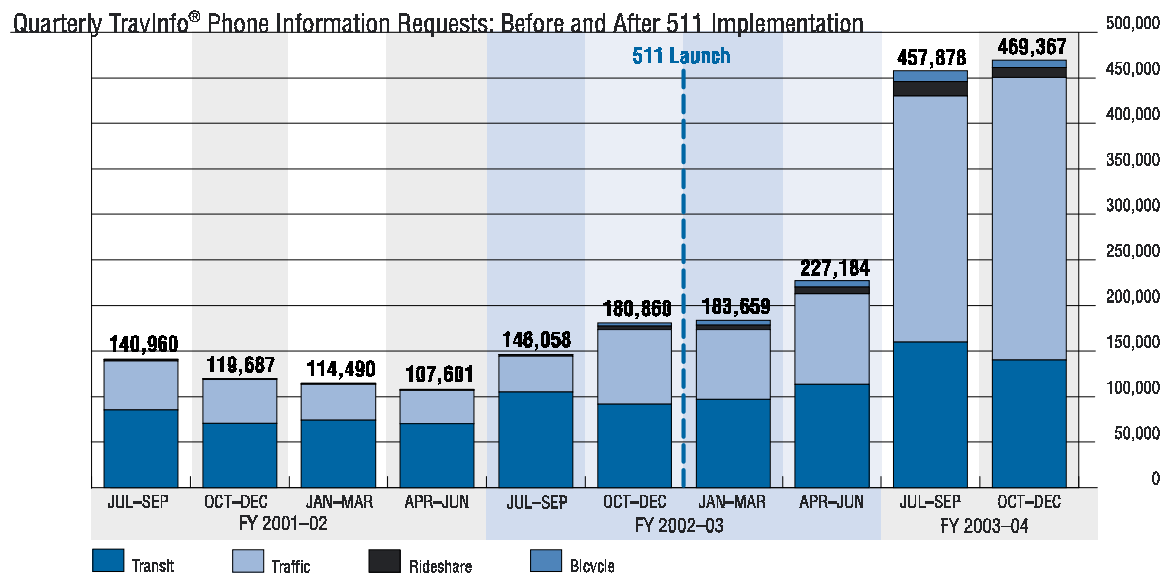
Overall, 87 percent of respondents reported that they were very likely to call 511 again and an additional ten percent reported that they were somewhat likely to call again.

511 Traveler Information Phone Service Call Volumes

Call volumes to the Bay Area's 511 service have been steadily increasing since the service was launched in December 2002. Overall use of the 511 phone service increased 66 percent in fiscal year 2002-03, compared to usage of its predecessor system, 817-1717. The system currently receives approximately 45,000 calls per week.

Marketing efforts have helped to further boost 511 call volumes. From March to June 2003, a general awareness campaign promoting 511 was posted on billboards and street banners, and was accompanied by advertising on the radio and on television. Also in June 2003, blue and white highway signs touting 511 were put up on Bay Area highways. As a result of these initiatives, call volumes increased during the first quarter of fiscal year 2003-04 (see graph below) and were sustained in the second quarter.

Increases in 511 call volumes regularly coincide with holiday travel periods and unusual weather conditions.



Note: This figure does not include the "Other" category that was included in Figure 1. Consequently, the totals in each figure will not correspond with each other.